

Qualitative method and territorial performance monitoring of macro-challenges: an integrated perspective

Original

Qualitative method and territorial performance monitoring of macro-challenges: an integrated perspective / Servillo, LORIS ANTONIO - In: Science in support of European Territorial Development and Cohesion. Second ESPON 2013 Scientific Report / ESPON. - ELETTRONICO. - Luxemburg : ESPON, 2013. - ISBN 978-2-919777-53-2. - pp. 201-207

Availability:

This version is available at: 11583/2731390 since: 2019-04-22T10:33:09Z

Publisher:

ESPON

Published

DOI:

Terms of use:

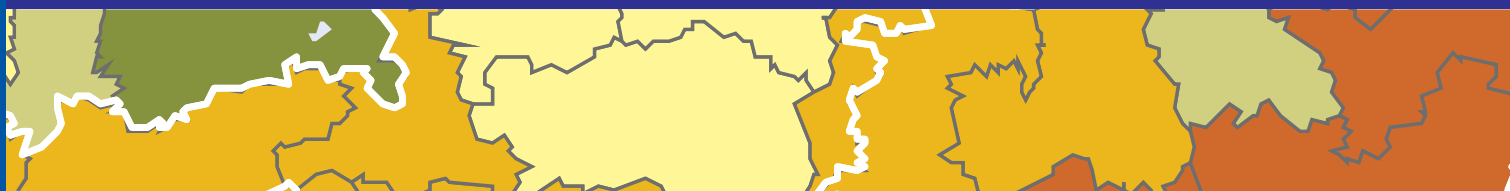
openAccess

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

GENERICO -- per es. Nature : semplice rinvio dal preprint/submitted, o postprint/AAM [ex default]

(Article begins on next page)



Second ESPON 2013 Scientific Report
December 2013

Science in support of European Territorial Development and Cohesion



ESPON 2013 Programme

Coordination Unit
4, rue Erasme
L-1468 Luxembourg
Grand Duchy of Luxembourg
Phone: +352 42 59 91 4700
Fax: +352 42 59 91 4701
Email: info@espon.eu

This publication is based on papers and the discussion of the ESPON Scientific Conference held on 12-13 September 2013. The papers were prepared by authors from transnational project groups carrying out applied research projects and targeted analyses for ESPON as well as authors from the professional and academic organisations AESOP, ECTP-CEU, ERSA, EUGEO and RSA.

The present publication was processed by the ESPON Coordination Unit and edited by Frank Holstein, Sabine Zillmer and Kai Böhme from Spatial Foresight. The single papers have been reviewed by Gordon Dabinett, Cliff Hague, Jacek Zaucha and Sabine Zillmer. Gordon Dabinett and Cliff Hague did the language editing of the papers.

Information on the ESPON Programme and projects, the complete reports and list of partners involved can be found at www.espon.eu

The ESPON website always presents the latest developments in the ESPON Programme and findings from ESPON projects. It offers the opportunity to consult in detail ESPON publications, tools, project reports and indicators available in the ESPON database.

ISBN 978-2-919777-53-2

© ESPON 2013 Programme and the authors
Reproduction is authorised provided the source is acknowledged and a copy is sent to the ESPON Coordination Unit.

The ESPON Programme is managed by the Ministry of Sustainable Development and Infrastructure, Department for Spatial Planning and Development, Grand Duchy of Luxembourg.

Printed in Luxembourg, February 2014

Printed on paper produced environmentally friendly

Layout and graphic design by Imprimerie Centrale

In the same series of ESPON publications:
First ESPON 2013 Scientific Report:
“Scientific Dialogue on Cities, Rural Areas and Rising Energy Prices”, December 2010

Disclaimer:

The content of this report is based on the results of applied research projects by transnational teams of research taking part in the ESPON 2013 Programme. As such, the maps and texts do not necessarily reflect the opinion of the ESPON Monitoring Committee.

The ESPON 2013 Programme, the European Observation Network for Territorial Development and Cohesion, supports policy development with evidence and analyses on territorial dynamics within Europe. ESPON's main activity is to deliver new European facts and understanding for policy makers via applied research projects, targeted analyses and analytical tools.

One of the objectives of the ESPON Programme is to support the European wide research community in the field of European territorial science and to involve a wide European network of scientists and practitioners in the field of territorial research and its related fields. A large involvement is indispensable to get high qualified research capacity in ESPON projects and at the same time to increase interest and competences in research on European territorial structures, trends, perspectives and impacts of EU sector policy.

The ESPON Programme has hitherto promoted the scientific component of the programme through scientific conferences and workshops, cooperation with European organisations in the fields of regional science, geography and spatial planning, as well as with a dedicated series of ESPON reports ("blue series") mainly targeting the scientific community. The ESPON 2006 Programme published two Scientific Reports and the first ESPON 2013 Scientific Report was published in 2010.

This second ESPON 2013 Scientific Report presents papers from both ESPON projects and authors from several European professional and academic organisations. The report is the result of the ESPON Scientific Conference "Science in support of European Territorial Development and Cohesion" held on the 12th and 13th of September 2013 in Luxembourg. This ESPON Scientific Conference targeted territorial research and analysis and continued the building of a European scientific research community that can provide evidence capable of supporting a stronger territorial dimension in policy considerations. In this context, the conference was part of a scientific dialogue to support a stronger territorial dimension in policy considerations. This is reflected in the aim of the conference, which was on the one hand to provide a good overview and scientific dialogue of the progress made in the scientific field during the current programming period. On the other hand, on-going ESPON projects as well as researchers outside the ESPON network had the opportunity to exchange their views of new and innovative research.

This Scientific Report contains 34 scientific papers, prepared by researchers involved in ESPON projects and authors from the European professional and academic organisations AESOP, ECTP-CEU, ERSA, EUGEO and RSA. The papers were presented and discussed during the conference workshop sessions, after which they have been reviewed by Prof. Gordon Dabinett, Prof. Emer. Cliff Hague, Assoc. Prof. Jacek Zaucha and Dr Sabine Zillmer. All authors have used the remarks made by the reviewers to strengthen their papers. The results can be found in Chapters 2 to 4.

Chapter 1 gives an introduction to the policy framework ESPON is dealing with and provides an overview and structure of all papers included. In addition, a number of overarching points emerged which are discussed giving some ideas for the future.

A third ESPON 2013 Scientific Report is planned for end 2014 taking stock of the progress ESPON projects made in the scientific field of territorial development and cohesion.

Table of contents

1	Introduction	page	10
2	Understanding territorial realities	page	15
2.1	Regional disparities and territorial cohesion	page	15
2.1.1	Investigating regional diversity and integrative patterns in ESPON collaboration networks <i>Sylvie Occelli, Elena Poggio and Alessandro Sciullo</i>	page	15
2.1.2	A composite index to measure the achievement of the 'Europe 2020 Strategy' by regions and member states: how far are territories to emerge from the crisis? <i>Rubén C. Lois, X. Carlos Macía and Valerià Paül</i>	page	22
2.1.3	Regional disparities in Europe: Are they robust to the use of different measures and indicators? <i>José Villaverde and Adolfo Maza</i>	page	27
2.1.4	Sigma-convergence as a measure of territorial cohesion <i>Hy Dao, Pauline Plagnat and Vanessa Rousseaux</i>	page	32
2.2	Relations between regional and spatial integration	page	38
2.2.1	Effective planning and scientific Data <i>Jan Vogelij</i>	page	38
2.2.2	Spatial integration revisited – new insights for cross-border and transnational contexts <i>Tobias Chilla and Estelle Evrard</i>	page	44
2.2.3	Deconstructing and re-constructing territorial governance: findings from ESPON TANGO case studies <i>Lisa Van Well and Peter Schmitt</i>	page	50
2.2.4	Between self-organization and policies: spatial models of dynamic urban processes <i>Izabela Mironowicz and Magdalena Mlek-Galewska</i>	page	55
2.2.5	Rural development, female mobility and the provision of SGI – a target group oriented approach <i>Karin Wiest and Daniel Rauhut</i>	page	61
2.2.6	The location of logistics activities in Northwest Europe: an empirical analysis <i>Mathieu Strale</i>	page	68
2.2.7	European functional border regions: An urban potential typology <i>Christophe Sohn and Nora Stambolic</i>	page	74
2.2.8	Polycentric metropolitan development: policy and research demand <i>Rudolf Giffinger and Johannes Suitner</i>	page	79
2.2.9	Population mobility: moving away from a 'sedentarist' epistemology <i>Antonio Russo, Ian Smith and Loris Servillo</i>	page	85

3	Measuring territorial outcomes	page	92
3.1	Large data sets	page	92
3.1.1	Firm growth during stretches of recession: modes of resilience of Austrian firms 2002-2011 <i>Michael Steiner and Michael Wagner-Pinter</i>	page	92
3.1.2	What can we learn from the territorial innovation dynamics in China, India and the U.S.? <i>Riccardo Crescenzi</i>	page	97
3.1.3	Territorial capital, territorial cohesion policy and services of general interest: a SWOT analysis of SGI <i>Daniela-Luminita Constantin and Raluca Mariana Grosu</i>	page	103
3.2	Typologies of European regions	page	109
3.2.1	Analyzing land use change dynamics for policy development: identification of hot-spots of change <i>Rasmus Ole Rasmussen, Ryan Weber and Gemma Garcia</i>	page	109
3.2.2	A spatial typology for European seas <i>Dania Abdul Malak, Lynne McGowan, Alberto Lorenzo-Alonso and Marta Calvet</i>	page	114
3.2.3	Characterisation of urban sprawl in Europe <i>Jaume Fons-Esteve and Mirko Gregor</i>	page	120
3.3	Availability of data at various geographical scales	page	127
3.3.1	Evidence from micro-data as a complement to aggregate analyses on regional disparities. <i>Enrique López-Bazo and Vicente Royuela</i>	page	127
3.3.2	Small area estimation of at risk of poverty rates <i>Andrew Copus and Mike Coombes</i>	page	132
3.3.3	Macroeconomic conditions beyond territorial elements in forecasting regional growth: the MASST3 model <i>Roberto Camagni and Roberta Capello</i>	page	139
3.4	Innovative types of data	page	146
3.4.1	Exploring Big Data for analysing territorial development <i>Sofie Jæger, Kai Böhme and Erik Gløersen</i>	page	146
3.4.2	Spatial disaggregation of socio-economic data and combination with spatial data by means of OLAP technologies <i>Roger Milego, Maria José Ramos and César Martínez</i>	page	153
3.4.3	Data needs and workarounds for cross-border studies: experiences in ULYSSES <i>Andreas Putlitz and Wolfgang Jung</i>	page	159

4	Science-policy interaction revisited	page 164
4.1	Methods supporting policy decisions and implementation	page 164
4.1.1	Calculating regionalised scenarios meeting Europe 2020 objectives <i>Christian Lürer, Maria Tóptsidou and Sabine Zillmer</i>	page 164
4.1.2	Researching in geography beyond the spatial planning, matching science, theory and practice <i>Maria Prezioso</i>	page 169
4.1.3	A conceptual device for spreading (good) territorial governance in Europe <i>Umberto Janin Rivolin and Giancarlo Cotella</i>	page 175
4.2	Approaches to support participatory processes	page 180
4.2.1	Strengthen the capacity of citizen participation in urban projects <i>Dominique Lancrenon, Bruno Clerbaux, and Ignacio Peman</i>	page 180
4.2.2	The Delphi method in ESPON: State of the art, innovations and thoughts for future developments <i>Estelle Evrard, Tobias Chilla and Christian Schulz</i>	page 187
4.2.3	Qualitative method and territorial performance monitoring of macro-challenges: an integrated perspective <i>Loris Servillo</i>	page 192
4.3	Challenges in communication techniques	page 198
4.3.1	New ICT in planning practice: a permanent need to innovate in practice <i>Nuno N. Pinto, Dominique Lancrenon and Martin Berchthold</i>	page 198
4.3.2	Are maps sufficient? Using traffic lights and box plots for a better understanding of ESPON <i>Alina Munteanu, Ciprian Alupului, Mihail Eva and Daniel Tudora</i>	page 204
4.3.3	An innovative educational tool in disseminating the ESPON knowledge widely: Evaluation and perspectives <i>Stella Kyvelou, Nektaria Marava, Simos Retalis and Ioanna Pothitaki</i>	page 209

List of Maps, Figures and Tables

Map 2.1	Regional participation to the ESPON program (2007-2013)	page	18
Map 2.2	EU2020S aggregate index, 2009-2010	page	24
Map 2.3	Regional change in the EU2020S aggregate index, 2005-2010	page	25
Map 2.4	Europe's cross-border metropolitan regions and their integration into the global economy	page	47
Map 2.5	EU Level – Typology on sex ratios	page	66
Map 2.6	EU level typology on SGEI	page	67
Map 2.7	The location of logistics activities	page	70
Map 2.8	The geography of logistics activities in Northwest Europe	page	71
Map 2.9	Urban potential of functional border regions in Europe	page	76
Map 2.10	Typology of attractive regions by types and intensity of mobilities attracted	page	87
Map 3.1	Land Change Hotspots, 1990-2006	page	112
Map 3.2	Intensity of land-sea interactions in Europe	page	118
Map 3.3	European Land Sea typologies map	page	119
Map 3.4	Typologies of urban development, 1990-2000	page	122
Map 3.5	Estimated AROP rates for NUTS 3 regions of the UK 2005	page	136
Map 3.6	Average annual regional GDP growth rate forecasted by the MASST3 model, baseline scenario, 2012-2030	page	143
Map 3.7	Tweet density in Europe, measured in number of tweets per 1000 inhabitants	page	147
Map 3.8	Percentage of tweets in a foreign language	page	148
Map 3.9	Majority language used in Luxembourgish municipalities (LAU2)	page	149
Figure 2.1	A scheme of a reflective regional system	page	16
Figure 2.2	The network of ESPON regional collaborations	page	19
Figure 2.3	Region-complementary basin indices in ESPON programme for selected indicators	page	20
Figure 2.4	Evolution of disparities	page	31
Figure 2.5	Territorial cohesion: the concept approached by territorial objectives and indicators	page	32
Figure 2.6	Graph representation of an indicator	page	33
Figure 2.7	Coefficient of variation of GDP per capita in PPS, 2002-2008: by NUTS level (a) and by type of NUTS3 regions (b)	page	35
Figure 2.8	Coefficient of variation for the four indicators under the territorial objective “strong local economies ensuring global competitiveness” by NUTS0, 2000-2010	page	36
Figure 2.9	Homogenization as an important consequence from European Integration	page	44
Figure 2.10	Cross-border commuting in the case study regions of the Metroborder project	page	45
Figure 2.11	Inter-relations between the five dimensions of territorial governance	page	54
Figure 2.12	Rank-size distribution of (a) Spain and its provinces in 1998, (b) Europe and the European countries in 2000 and (c) the world and the continents in 2000	page	56
Figure 2.13	Application of the model for examining the impact of different networks on the Metropolitan Area of Wrocław	page	57
Figure 2.14	The impact on simulation results of different contact types represented by changes of selectivity parameter. Case study: Metropolitan Area of Wrocław	page	58
Figure 2.15	Simulation of Wrocław's metropolitan centres: (a) within the planned transportation network (b) final predilection of the bi-polar centre system and (c) municipal plan of developing three-centre system	page	59

Figure 2.16	Simulation of the imaginary structure of the Western Pole in Wrocław Metropolitan Area – results after 100 iterations with (a) 10 % (b) 100 % and (c) 1000 % increase of the source potential	page	59
Figure 2.17	Population in core border regions in 2006	page	77
Figure 2.18	Population change in core border regions 2001-2006 (%)	page	77
Figure 2.19	Indicators of metropolitan development in Central European agglomerations	page	80
Figure 2.20	Confronting features of PMD with strategic assessments	page	82
Figure 2.21	Layers of PMD in a processual dimension	page	82
Figure 3.1	Criteria for selection of „promising“ fields of landscape	page	94
Figure 3.2	Territorial drivers of innovation dynamics and streams of literature combined in the integrated framework	page	98
Figure 3.3	Methodological flow used to analyze prevailing land use characteristics	page	110
Figure 3.4	Illustrates the process of land- sea typology development	page	115
Figure 3.5	Urban development in cities and LUZ, 1990-2000 and 2000-2006	page	123
Figure 3.6	The AROP rate	page	133
Figure 3.7	Two alternative ways of using available data in UK	page	134
Figure 3.8	The vicious cycle of the crisis and the stability pact effects: endogenous and exogenous relationships in the MASST model	page	142
Figure 3.9	Overall, between- and within-country disparities (Theil indices), 2011-2030	page	144
Figure 3.10	Example of unique combination of units within a grid cell	page	154
Figure 3.11	General schema of data processing for OLAP integration	page	155
Figure 3.12	Schema of OLAP fact table built-up	page	155
Figure 3.13	Sample result of an OLAP Cube analysis within MS Excel	page	156
Figure 3.14	Screenshot of the OLAP web tool homepage	page	157
Figure 3.15	Screenshots of the OLAP web tool results after a query	page	157
Figure 4.1	R&D expenditures 2009&2020 (scenarios) in German NUTS1 regions [%]	page	166
Figure 4.2	Employment rates 2010 & 2020 (scenarios) in EU28 NUTS2 regions [%]	page	167
Figure 4.3	Evolutionary cycle of territorial governance	page	176
Figure 4.4	Evolutionary cycle of European territorial governance	page	177
Figure 4.5	Modes for the spread of (good) territorial governance in Europe	page	177
Figure 4.6	Typology of eight levels of participation proposed by Sherry Arnstein, 1969	page	181
Figure 4.7	The site of the case study “Tours et Taxis”, Brussels, and designs for the urban project	page	183
Figure 4.8	The case study Bondy, France: Site, designs and process	page	184
Figure 4.9	Structure of the monitoring process	page	195
Figure 4.10	Hypothetical example: a CBC compared to a country	page	205
Figure 4.11	Romania – Bulgaria CBC compared to successively to EU-27+4, all CBC Areas, Romania and Bulgaria	page	206
Figure 4.12	Example of box plots annexed to a map. GDP/hab. at the NUTS3 level in Romania – Bulgaria CBC Area	page	207
Figure 4.13	Overall idea of the educational programme	page	211
Figure 4.14	Overall experience within the ESPONTrain Virtual Learning Environment	page	212
Figure 4.15	Evaluation of the ESPONTrain project mainly related to professional and academic criteria	page	213
Table 2.1	Coefficient of variation of the economic and human capital indices	page	17
Table 2.2	Main centrality indices for the 10 top regions in the network	page	19
Table 2.3	Ten regions with the highest and lowest EU2020S aggregate index, 2009-2010	page	23
Table 2.4	Weights for composite indicators echoing HDI	page	29
Table 2.5	Summary of Simplified Findings	page	42

Table 2.6	Overview of the five dimensions and 12 indicators of territorial governance	page	51
Table 2.7	Place-based knowledge and target group oriented policy advice	page	63
Table 2.8	Life course, policy recommendations, levels of implementation	page	64
Table 2.9	Economic and labour market performance of cluster types	page	88
Table 3.1	The „top fields“: Overview	page	95
Table 3.2	Empirical Variables included in the model	page	99
Table 3.3	Territorial Innovation Dynamics in China, India and USA	page	100
Table 3.4	A SWOT analysis of SGI (short version)	page	105
Table 3.5	Ranking of CLC classes based on Land Use Intensity	page	111
Table 3.6	Some examples of regional disparities	page	129
Table 3.7	Specification of Model A	page	135
Table 3.8	Specification of Model B	page	135
Table 4.1	Implementation of the Delphi method in ESPON projects	page	188
Table 4.2	Thoughts for further implementation of the Delphi method in the ESPON programme	page	190
Table 4.3	Comparison between qualitative and quantitative methods	page	194

4.2.3 Qualitative method and territorial performance monitoring of macro-challenges: an integrated perspective

*Loris Servillo**

I. INTRODUCTION: SPATIAL CHALLENGES, RESILIENCE, AN INTEGRATED PERSPECTIVE AND TRANS-DISCIPLINARITY

Some ESPON projects (ESPON 2006; Lennert et al., 2012) have provided evidence about the complex interdependencies between regional dynamics and world-wide challenges, in particular climate change, energy provision, demographic trends and globalization which were considered as prominent issues with potential effects on spatial structures and dynamics. However, what emerges is that, even if there is a growing agreement that these challenges are important, it is not always clear in which ways macro-dynamics impact at the regional level and what regions can do about them. The ESPON project “Territorial Performance Monitoring” (TPM) (Lennert et al., 2011; 2012) has shown that the competences necessary to act directly – and coherently – through an integrated perspective on spatial dynamics are lacking.

The challenge seems to be the capacity to understand and to monitor the different consequences at regional level and so to adopt proper policy measures. This implies a reconsideration of mainstream approaches in regional policy making. Territorial governance processes should use general aims (sustainability, territorial cohesion) to frame spatial changes in an integrated manner, in order to cope coherently with the complexity of internal and external driving forces.

Resilience of territories refers to the ability of cities and regions to recover from shock events and disturbance in general, e.g. dealing with climate change or flood risks. There are several interpretations and approaches to “resilience”: The term is even at risk of becoming a ‘vacuous buzzword’. Recent overviews (Davoudi, 2012; 2013) however have highlighted three distinct perspectives on resilience (engineering, ecological, and evolutionary). In particular the latter indicates the idea that fostering resilience involves planning for not only recovery from shocks, but also cultivating preparedness, and seeking potential transformative opportunities which emerge from change, involving society and activating bottom-up processes (Servillo & Reimer 2013).

There are two important requirements in order to use the resilience concept to address spatial changes and challenges in a dynamic and evolutionary way. First, a spatial perspective that allows an integrated approach to complex phenomena is necessary. Macro-dynamics such as demography, energy, climate change, globalization processes and other complex phenomena often fall in the sectorial domains of policy decision making without a clear focus on their spatial patterns.

Second, a trans-disciplinary approach (Moulaert et al., 2010; 2011) is crucial in order to guarantee learning and participatory processes. There are gaps between those engaged in analysis, monitoring and research on the one hand, and on the other hand stakeholders and policy makers. The situation seems rather static and compartmentalised: researchers and experts provide evidence on specific (often sectorial) dynamics; stakeholders and policy makers are expected to read, understand and react according to the flows of information they receive. This traditional approach is far from being a learning process based on (social) innovation and shared endeavours, as recommended in the resilience debate and in its evolutionary stream. Forms of interactions and mutual learning among different actors are needed to bridge this gap.

These two goals are not easy to achieve. They require commitments and stable relationships and the acceptance that time and human resources are necessary and that they have to be allocated in a coherent manner. Inter- and trans-disciplinary research, with strong stakeholder involvement in the definition of the agenda and the exploration of fields of investigation is required.

* KU Leuven, ASRO department, Belgium (loris.servillo@asro.kuleuven.be)

The experience in the TPM project went in that direction. Despite some limitations, the project offered the possibility to experiment with forms of cooperation and to explore the complexity of applying such a normative methodological approach.

II. REGIONAL CONTEXTS AND MONITORING TOOLS

The macro-challenges outlined above show interdependencies among scales and to a certain extent also among challenges (e.g. between climate change and migration or between globalization and energy dependency). However, they manifest themselves in particular at a regional scale, with different characteristics and varying intensities. There are numerous examples of how macro-trends have place-specific configurations: e.g. the variety of changes in agriculture and in the biotopes in regions across Europe, the particular dynamics that global flows of investments trigger in regional markets and their labour systems, the different demographic patterns (from aging to gender issues) in different areas and their impacts on the labour market, etc. These effects are even more pronounced in densely populated territories where available space is very limited and claims are often in competition, such as areas in which investments in different forms of energy, changes in consumption and production, different forms of mobility and international investments are in conflict.

The regional level of policymaking – and spatial planning in particular – seems only partially suitable to cope with these issues and so to synthesise EU policy objectives and a place-based approach (Barca, 2007). Macro-trends can rarely be confined within formal administrative boundaries. As a consequence, regions need to adjust to new global rationales, i.e. to define new spaces of engagement (Cox 1998) which are a result of the complex processes of rescaling (Brenner 2004). Thus regionalism (Gualini 2004) needs to try to define effective and coherent spaces for policy going beyond formal administrative competences.

However, knowledge of the specific regional consequences of macro-challenges is limited and appropriate regional planning tools are rare. This explains the growing interest of regional governments to generate evidence-based information about these consequences, but also about the position and assessment of the region in relation to these challenges and their impacts on space and policy.

Following these considerations, the ESPON TPM project (Lennert et al., 2011; 2012) dealt with the assessment of regional capacities to deal with global spatial challenges in five European macro-regions: the Greater Dublin Area (GDA), Flanders, North Rhine-Westphalia (NRW), Navarre and Catalonia. The aim of the project was not to provide a sort of “guide to monitoring for dummies”, but rather to reflect on how European challenges translate into regional realities, and to assess the current monitoring practices in the 5 regions and to exchange best practices between stakeholder regions based on their monitoring experience in order to elaborate and test different techniques and tools for monitoring.

The idea was that a combination of qualitative and quantitative methods of analysis was necessary. On the one hand quantification of trends in an indicator set supports benchmarking initiatives and comparisons of specific aspects in time; on the other hand qualitative analysis (Creswell, 2007) is needed to contextualize evidence and to address wicked and complex dynamics. A summary of the complementary characteristics of the two different methods is presented in Table 4.3.

The explicit philosophy was that, in principle, monitoring regional performance should be more than the quantification of phenomena in a statistical way for a comparative exercise. Methods of qualitative enquiry can provide alternative ways to “measure” aspects that are not quantifiable (by their nature or because of lack of data) but can also interpret the data in their regional context, and reflect on the governance structures.

Table 4.3 Comparison between qualitative and quantitative methods

	QUANTITATIVE ANALYSIS	QUALITATIVE ANALYSIS
Aim	<ul style="list-style-type: none"> • Identification of major differences through statistical relationships • Generalizable results and identification of trends • Benchmarking 	<ul style="list-style-type: none"> • In-depth examination of wicked problems • Analysis of the peculiar aspects of the case study • Exploration of complex interrelationships
Techniques	<ul style="list-style-type: none"> • Limited number of questions • Statistical sound methods numeric data sets 	<ul style="list-style-type: none"> • From informal to more structured inquiries • Narratives and biographies • Involvement of relatively small group of actors
Characteristics	<ul style="list-style-type: none"> • Objectivity • Possibility to identify correlations between trends • Risk of over-simplifications 	<ul style="list-style-type: none"> • Knowledge based on interpretative processes • Holistic approach • Risk of being “just a bit more than organised common sense”

Source: author

Therefore, the project set up a general scheme based on a mix of quantitative and qualitative research methods and techniques (Lennert et al., 2011). Afterwards, the scheme was tailored in each region according to the specific institutional context and existing tools, and on the base of the different stakeholders' interests.

III. FRAMEWORK FOR QUALITATIVE ANALYSIS

The project proposed specific guidelines (Servillo, 2012) for qualitative assessment of the regional capacity in dealing with the four macro-challenges to be integrated with the definition of indicator sets for quantitative benchmarking.

It envisaged a wider involvement of stakeholders and key experts, since a trans-disciplinary approach that brings together researchers and stakeholders can address in a comprehensive way the complexity of spatial dynamics. Moreover, it increases the challenge of setting up the process and of getting it institutionalized within a regional context and its policy systems (spatial planning, regional development, and other sectorial areas).

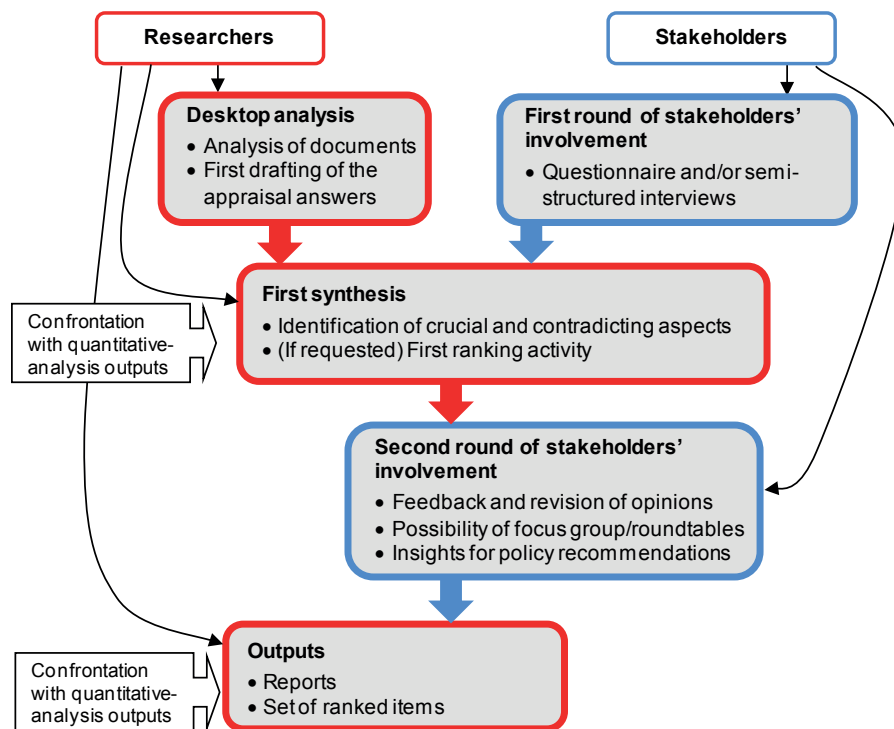
The scheme in Figure 4.9 describes the structure of the monitoring process and the stakeholder involvement that was proposed for the project. It was based on the concept of an “Adaptive Monitoring” framework (Lindenmayer and Likens, 2009) in which question-setting, study design, data collection, data analysis, and data interpretation are iterative steps (Lievois & Servillo, 2012) which can then evolve and develop in response to new information or new questions.

The goal of the case study analyses was to assess the transferability of a generally proposed “mind map of awareness” (see Figure 2 in Lennert et al. 2011:10) related to the global challenges and related themes, but also to assess the effectiveness of regional policy to respond to those challenges.

Therefore the project focused on the following issues:

- Planning systems and governance structures;
- Strategies and planning documents.

Figure 4.9 Structure of the monitoring process



Source: Author, based on Servillo 2012

In line with this, the guideline was accompanied by an extensive set of appraisal questions based on four research aims which corresponded to four appraisal sections. The first one focused on the awareness of the (spatial) policy domain about these macro-challenges and about how the region is framed in a wider (EU) context. It referred, for instance, to the capacity to have updated, and constant use of, ESPON analyses and benchmarking tools.

The second section focused on the institutional resilience (Servillo & Reimer 2013) of the planning system and its capacity to react/take into account these challenges in a strategic and integrated manner.

The third section was dedicated to the effectiveness and the coherence of the actual measures contained in a so-called "policy bundle", which represents the sum of the existing documents/strategies and tools that address eventual answers to the challenges.

Finally, the fourth section aimed at giving an indication of possible future threats/opportunities that the macro-challenges could represent in coming decades (for a full overview of the appraisal scheme and questions see Servillo 2012).

Feedback on the two-step analysis

The general assessment of all the teams indicates that the two-step articulation was very fruitful, in particular for the capacity to integrate the different stakeholders' knowledge (e.g. public administration, sectoral experts, etc.) and different scales (in NRW, both State and Regional stakeholders were involved).

Positive feedback was given about the use of workshops and expert seminars, both in terms of information gathering and consensus building. Information gathering enabled a lot of information and different data to be compared, leading the teams to fine-tune their draft assessments. Evidence from existing documents or programmes not originally included in the analysis was unearthed.

Consensus was built in a number of ways. In most of the workshops the qualitative assessments deriving from the main sessions of the questionnaire led to an agreement. In some cases the seminars were characterized by high levels of stakeholder involvement, which created intense interchange of ideas and stimulated the confrontation of different opinions. In some cases there were strong contradictions among experts and policy makers and the interaction was more difficult, and the workshop could not reach a shared view. Another problem experienced in some workshop sessions was that the debate focused on very concrete concerns, so that it became difficult to bring back the discussion to a broader level. Despite such difficulties, the workshop session was seen as a crucial and enriching event.

However, when the aim was to list and rank priority items, workshops proved less helpful than Delphi-rounds or focus group discussions.

The role of stakeholders

The cooperation with the stakeholders was assessed as very useful. It helped especially to scrutinize the state of the art and the different policy needs/perceptions at various levels. The interviews proved to be an excellent validation to the desktop analysis, while providing more detailed insights. They also proved to be necessary since the broadness of the themes, the scattering of policy domains and the way in which policy domains interact can lead to a “loss of the overview”, both amongst the researchers and amongst the stakeholders (as some admitted).

However, the interaction between scientists and stakeholders (especially where stakeholders represent different levels) proved to be complex, and opinions among them often diverged. Therefore good preparation and facilitation skills are needed to manage successfully seminars and workshops that bring these groups together. One team even experienced reluctance from some stakeholders and experts to discuss some topics, and in one case there was an explicit request not to record the interview. This highlights how a monitoring exercise can be politically sensitive.

IV. CONCLUSION

TPM has been an occasion for reflecting on wider and complex socio-ecological dynamics and to experiment with some methodological innovations. Its approach was based on the integration of qualitative and quantitative methods in a trans-disciplinary manner. Such integration boosts the capacity to understand spatial dynamics and the complex interrelationships between macro-challenges, and between factors across scales. Consequently, it supports the activation of integrated policy measures and fosters adaptability and learning capacity, improving the resilience of regions.

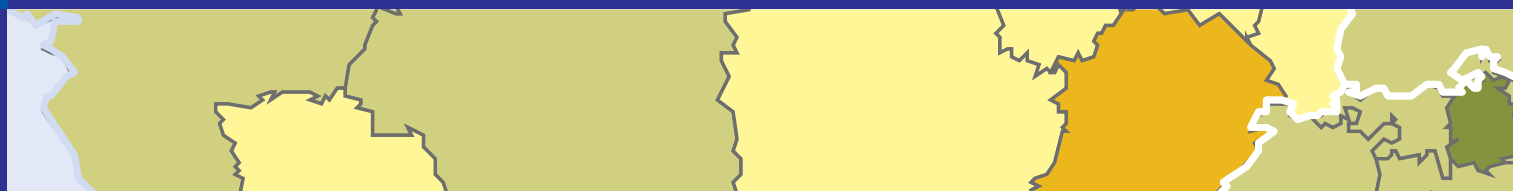
However, one of the crucial aspects of a monitoring system is its cyclical round of analyses. The integrity of a long-term perspective guarantees a stable monitoring of spatial changes, based on a constant interaction among experts and stakeholders. In order to support such a resource-demanding process, a shared ownership between the administration and the researchers is required, but this should not affect its political ‘neutrality’.

On the contrary, the ESPON TPM was an *ex-tempore* exercise. Despite being based on the idea that it could have been tailored and integrated into the existing monitoring processes of each stakeholder’s policy context, the institutional complexity and course of events did not allow simple process of adaptation and learning.

Moreover, and unfortunately, in today’s circumstances things are going in a rather opposite direction, away from strong investment in monitoring processes for evidence-based policy. A stark illustration of this is the fact that one of the TPM research partner institutions has been shut down by its administration as a consequence of the general reorganisation (and cuts) in the public budget. This happened immediately after the end of the project, and provides an unhappy conclusion for the approach we developed.

REFERENCES

- Barca, F. (2009), An Agenda for a Reformed Cohesion Policy, A place-based approach to meeting European Union challenges and expectations. Independent Report prepared at the request of Danuta Hübner, Commissioner for Regional Policy.
- Brenner N. (2004), *New State Spaces: Urban Governance and the Rescaling of Statehood*. Oxford University Press, Oxford.
- Cox, K. R. (1998), Spaces of dependence, spaces of engagement and the politics of scale, or: looking for local politics. *Political geography*, 17:1, 1-23.
- Creswell, J. W. (2007), *Qualitative inquiry & research design: choosing among five approaches*, Sage Publications.
- Davoudi S., Brooks E., Mehmood A. (2013), Evolutionary Resilience and Strategies for Climate Adaptation, *Planning Practice & Research*, 28 (3), 307-322.
- Davoudi, S. (2012), Resilience, a bridging concept or a dead end?, *Planning Theory and Practice*, 13 (2), 299-307
- ESPON (2006), Spatial Scenarios and Orientations in relation to the ESDP and Cohesion Policy, Project 3.2, - Final Report, Espon, Luxemburg.
- Gualini, E. (2004), Regionalization as 'Experimental Regionalism': The rescaling of territorial policy-making in Germany, *International Journal of Urban and Regional Research*, 28 (2), 329-353
- Lennert, M., Patris, C., Schindler, M., Servillo, L., Lievois, E., Redondo, J., Capel Tatjer, L., Ramos Lobato, I., Reimer, M., Gleeson, J., García, M., Álvarez, G. (2011), TPM Territorial Performance Monitoring – Inception Report. Luxemburg: ESPON.
- Lennert, M., Servillo, L., Lievois, E., Redondo, J., Capel Tatjer, L., Reimer, M., Ramos Lobato, I., Gleeson, J., Garcia, M. (2012), ESPON Territorial Performance Monitoring (TPM) – Final Report. Luxemburg.
- Lievois E., Servillo L. (2012), Integrating qualitative and quantitative analysis in a territorial performance monitoring tool on global challenges: aspects of institutionalization and implementation in a policy context. AESOP 2012: 26th Annual Congress Proceedings. AESOP. Ankara, 11-15 July 2012.
- Lindenmayer, D. B., Likens, G. E. (2009), Adaptive monitoring: a new paradigm for long-term research and monitoring. *Trends in Ecology & Evolution*, 24, 482-486.
- Moulaert F., Cassinari D., Hillier J., Miciukiewicz K., Novy A., Habersack S., MacCallum D. (2011), Transdisciplinary Research in Social Polis', SOCIALPOLIS.
- Moulaert F., MacCallum D., Mehmood A., Hamdouch A. (2010), 'Social Innovation: Collective action, social learning and transdisciplinary research'. KATARSIS, Final Report, European Commission.
- Servillo L., Reimer M. (2013), Strategic Spatial Planning and Institutional Resilience: Theoretical Thoughts and some Empirical Devices, Joint AESOP / ACSP Congress Dublin 2013.
- Servillo, L. (2012), Guidelines for Qualitative Analysis of Regional Governance System and Resilience. Annex. 1-20 pp. In: M. Lennert et al. (2012). TPM Territorial Performance Monitoring – Final Report. Luxemburg: ESPON.



www.espon.eu

The ESPON 2013 Programme supports policy development in relation to the aim of territorial cohesion and harmonious development of the European territory. It provides comparable information, evidence, analysis, and scenarios on territorial dynamics, which reveal territorial capitals and development potentials of regions and larger territories contributing.

This Scientific Report publishes 34 papers on understanding territorial realities, measuring territorial outcomes and revising science-policy translation. The papers have been prepared by researchers involved in ESPON projects and by authors from the European professional and academic organisations AESOP, ECTP-CEU, ERSA, EUGEO and RSA.

The ESPON Scientific Conference “Science in support of European Territorial Development and Cohesion” held on 12-13 September 2013 in Luxembourg has been used to present, discuss and reflect upon the papers.

The close cooperation with the European professional and academic organisations mentioned ensured an exchange of experiences with other scientific researchers in the same field and enabled all authors to sharpen the methodologies used and presented.

The purpose of this report is to communicate and discuss scientific elements such as concepts, methodologies, indicators, typologies, tools, maps and models developed and/or used within the ESPON projects and the European scientific research community in the field of territorial development and cohesion. As part of the dialogue on territorial development and cohesion you are welcome to engage with ESPON via www.espon.eu.